SHARP PROGRAMMING MANUAL

CODE : 00ZERA320UPME



ELECTRONIC CASH REGISTER

MODEL ER-A320

(For "U" & " A " version)
SRV KEY: LKGIM7113RCZZ
PRINTER: UCR-812AⅡ

CONTENTS

Parts marked with "⚠" are important for maintaining the safety of the set. Be sure to replace these parts with specified ones for maintaining the safety and performance of the set.

SHARP CORPORATION

CHAPTER 1. SERVICE (SRV) MODE

The SRV key is used for operating in the SRV mode.

1. SRV reset (Program Loop Reset)

Used to return the machine back to its operational state after a lockup has occurred.

Procedure

- Method 1

1) Unplug the AC cord from the wall outlet.
2) Set the mode switch to (SRV') position.
3) Plug in the AC cord to the wall outlet.
4) Turn to (SRV) position from (SRV') position.

- Method 2

1) Set the mode switch to PGM position.
2) Unplug the AC cord from the wall outlet.
3) While holding down JOURNAL FEED key and RECEIPT FEED key, plug in the AC cord from the wall outlet.

Note: 1. The ER-A320 printer will cycle and print the following on the journal

```
★★★★★★        2
```

2. Master reset (All memory clear)

Used to clear all memory contents and return machine back to initial settings.
(Returns keyboard back to the default keyboard layout.)

Procedure

1) Unplug the AC cord from the wall outlet.
2) Set the MODE switch to the (SRV') position.
3) Plug in the AC cord to the wall outlet.
4) While holding down JOURNAL FEED key, turn from (SRV') position to the (SRV) position.

Note: 1. The ER-A320 display will flash the "." decimal point at the right most position and will beep 3 times.

2. The ER-A320 printer will cycle and print the following on the journal

```
★★★★★★        1
```

3. Reading of the SRV mode program

List of program report

JOB#	REPORT NAME
900	SRV mode program full item report (Not included the keyboard layout)
950	Keyboard layout report

[JOB# 900]

All parameters contained for the SRV mode as listed

Key operation

- SRV mode

900 → [@/FOR] → [CA/AT]

- PGM mode

9900 → [@/FOR] → [CA/AT]

```
   YOUR RECEIPT
                     —— STAMP
    THANK YOU

 01-01-00            —— Date

 901  0002           —— Programming contents
                        (JOB#/Data)
 902  0000
 903  0000
 904  0000
 905  0105
 906  0200
 907  0010
 908  0700
 909  2000
 910  0000
 911  0000
 912  0040
 913  0104
 914  1003
 915  0000
 916  0000
 917  0000
 918  2000
 919  0000
  Z1  0000           —— Z1 Counter
  Z2  0000           —— Z2 Counter
          GT  1      —— GT 1
  *000000
 00000.00
          GT  2      —— GT 2
  *000000
 00000.00
          GT  3      —— GT 3
  -000000
 00000.00
          GT  @      —— Training GT
  *000000
 00000.00

 000-0002            —— Machine No.- Concective No.
    12-00            —— Time
```

[JOB# 950]

Keyboard layout programming report

Key operation

- SRV mode

950 → @/FOR → CA/AT

- PGM mode

9950 → @/FOR → CA/AT

YOUR RECEIPT

THANK YOU

01-01-00

01	17
02	18
03	22
04	26
05	19
06	23
07	27
08	20
09	24
10	28
11	21
12	25
13	12
14	11
15	65
16	63
17	••
18	60
19	44
20	62
21	••
22	••
23	••
24	••
25	07
26	03

Key code / Key position code (01 17)

Key is not stored. (••)

27	09
28	10
29	05
30	••
31	06
32	••
33	••
34	68
35	••
36	••
37	••
38	66
39	61
40	••
41	67
42	••
43	••
44	••
45	••
46	02
47	01
48	••
49	••
50	50
51	••
101	39
102	40
103	41
104	42
105	43
106	45
107	46
108	47
109	48

110	49
111	••
112	••
113	••
114	••
115	••
116	••
117	••
118	••
119	••
120	••
121	••
122	••
123	••
124	••
125	••
126	••
127	••
128	••
129	••
130	••
131	••
132	••
133	••
134	••
135	••
136	••
137	••
138	••
139	••
140	••

000-0004
12-01

Service mode programming

The following are the key operation required for programming.

(In SRV mode)

XXX → [•] → [@/FOR] → [A] [B] [C] [D] (0) → [CA/AT]
(Job#) (DATA)

(In PGM mode)

∗ JOB#901-A must be set to "0"

9XXX → [•] → [@/FOR] → [A] [B] [C] [D] (0) → [CA/AT]
(Job#) (DATA)

Details of [A] [B] [C] [D] will be discussed at each item description.

★ mark is MRS setting.

[JOB#901] : MRS = 0002

#901-A : 1. SRV programming in PGM mode

1. SRV programming in PGM mode	901-A	
Enable	0	★
Disable	4	

#901-B : 1. TAX system

1. Tax system	901-B	
Auto tax 1-4 & manual tax	0	★
CANADIAN TAX (Type ① to Type ⑩)	6	
CANADIAN TAX (Type ⑪ : VAT on TAX)	7	

#901-C : 1. Rounding system

1. Rounding system	901-C	
Normal	0	★
SINGAPORE	8	

#901-D : 1. "00"key or "000"key selection
2. TAB setting

1. "00"key or "000" selection	2. TAB setting	901-D	
"00"key	0	0	
	0.0	1	
	0.00	2	★
	0.000	3	
"000"key	0	4	
	0.0	5	
	0.00	6	
	0.000	7	

[JOB#902] NOT USED : MRS = 0000

[JOB#903] NOT USED : MRS = 0000

[JOB#904] MRS = 0000

#904-A : 1. Printing of date

1. Printing of date	904-A	
Yes	0	★
No	4	

#904-B : 1. Printing of consecutive No.

1. Printing of consecutive No.		
Yes	0	★
No	4	

#904-C, D : Not used (Fixed at "00")

[JOB#905] MRS = 0105

#905-A : 1. Taxable 4 subtotal print on X/Z report.
2. Gross Tax 4 and refund Tax 4 total print on X/Z report.
3. Net Tax 4 total print on X/Z report.

1. Taxable 4 SBTL	2. Gross Tax 4 and refund Tax 4	3. Nex Tax 4	905-A	
Print	Print	Print	0	★
		Skip	1	
	Skip	Print	2	
		Skip	3	
Skip	Print	Print	4	
		Skip	5	
	Skip	Print	6	
		Skip	7	

#905-B : 1. Tax printing when taxable subtotal is zero.
2. Tax printing when GST is VAT.
3. Tax printing when tax is zero.

1. Taxable subtotal is zero	2. GST is VAT	3. Tax is zero	905-B	
Skip	Print	Print	0	
		Skip	1	★
	Skip	Print	2	
		Skip	3	
Print	Print	Print	4	
		Skip	5	
	Skip	Print	6	
		Skip	7	

#905-C : 1. GST EXPT print on X/Z report

1. GST EXPT	905-C	
Print	0	★
Skip	4	

#905-D : 1. TAX METHOD

	Tax 4 method (GST)	Tax 3 method GST	Tax 3 method PST	Tax 2, 1 method (PST)	905-D	
Type ①	VAT	VAT		Tax on Tax	0	
Type ②				Tax on Base	1	
Type ③	VAT		Tax on Tax		2	
Type ④			Tax on Base		3	
Type ⑤	Add on Tax		Tax on Tax		4	
Type ⑥			Tax on Base		5	★
Type ⑦	Add on Tax	VAT		Tax on Tax	6	
Type ⑧				Tax on Base	7	
Type ⑨	Add on Tax	Add on Tax		Tax on Tax	8	
Type ⑩				Tax on Base	9	

[JOB#906] MRS = 0200

#906-A : 1. Not used (Fixed at "0")

#906-B : 1. Hash department setting

1. Hash department setting	906-B	
Disable	0	
Enable	2	★

#906-C : 1. Split pricing counting

1. Split pricing counting	906-C	
Quantity	0	★
Package	4	

#906-D : 1. Fractional quantity

1. Fractional quantity	906-D	
No	0	★
Yes (3 digit decimal place)	1	

[JOB#907] MRS = 0010

#907-A, B : Not used (Fixed at "00")

#907-C : 1. Minus Dept./PLU

1. Minus Dept./PLU	907-C	
Disable	0	
Enable	1	★

#907-D : Not used (Fixed at "0")

[JOB#908] MRS = 0700

#908-A : GT print on Z report

GT1 (NET)	GT2(+)	GT3(-)	908-A	
Print	Print	Print	0	★
		Skip	1	
	Skip	Print	2	
		Skip	3	
Skip	Print	Print	4	
		Skip	5	
	Skip	Print	6	
		Skip	7	

#908-B : GT print on X report

GT1(NET)	GT2(+)	GT3(-)	908-B	
Skip	Skip	Skip	0	
		Print	1	
	Print	Skip	2	
		Print	3	
Print	Skip	Skip	4	
		Print	5	
	Print	Skip	6	
		Print	7	★

#908-C : 1. Add void-mode transaction data to hourly total report
2. Resetting of consecutive number in Z1 resetting

1. Add void-mode transaction to hourly total reporet	2. Resetting of consective No. in Z1 resetting	908-C	
No	No	0	★
	Yes	1	
Yes	No	4	
	Yes	5	

#908-D : 1. Z1 resetting, resets GT Enable/Disable

1. GT resetting at Z1	908-D	
No	0	★
Yes	1	

[JOB#909] MRS = 2000

#909-A : 1. Printing of training GT on the X report
2. Printing of training GT on the Z report

1. Printing of training GT on the X report	2. Printing of training GT on the Z report	909-A	
Skip	Print	0	
	Skip	1	
Print	Print	2	★
	Skip	3	

#909-B : Not used (Fixed at "0")

#909-C : 1. Printing of data in void-mode totalizer and manager void totalizer on Z2 report
2. Printing of data in void-mode totalizer and manager void totalizer on Z1 report

1. Void-mode totalizer on Z2 printing	2. Void-mode totalizer on Z1 printing	909-C	
Print	Print	0	★
	Skip	2	
Skip	Print	4	
	Skip	6	

#909-D : Not used (Fixed at "0")

[JOB#910] NOT USED : MRS = 0000

[JOB#911] MRS = 0000

#911-A : 1. Fraction treatment

1. Fraction treatment	911-A	
Round off	0	★
Round up	1	
Round down	2	

#911-B, C, D : Not used (Fixed at "000")

[JOB#912] MRS = 0040

#912-A : 1. Date print format

Date format	912-A	
Month/Day/Year	0	★
Day/Month/Year	1	
Year/Month/Day	2	

#912-B : 1. Time system

1. Time system	912-B	
12H	0	★
24H	1	

#912-C : 1. After transaction receipt format

1. After transaction receipt	912-C	
Total only	0	
Detail	4	★

#912-D : Not used (Fixed at "0")

[JOB#913] MRS = 0104

#913-A : 1. VP format on Receipt/Journal
2. Content of TOTAL VP amount

1. VP format	2. VP amount	913-A	
Date & amount	Total amount	0	★
	Tendered amount	1	
Machine# & amount	Total amount	2	
	Tendered amount	3	

#913-B : 1. Printing of SBTL
2. Printing of MDSE SBTL upon key depression
3. Escape the compulsion of VP

NOTE : Must turn to MGR mode and depress

- [·] → [PRINT] keys to escape validation

1. SBTL Print	2. MDSE SBTL print	3. Escape the compulsory of VP	913-B	
No	No	Disable	0	
		Enable	1	★
	Yes	Disable	2	
		Enable	3	
Yes	No	Disable	4	
		Enable	5	
	Yes	Disable	6	
		Enable	7	

#913-C : 1. Buzzer off 2sec. after lock error.
2. Buffered keyboard

1. Error beep	2. Buffered keyboard	913-C	
2-sec. off	Yes	0	★
	No	1	
Constant	Yes	2	
	No	3	

#913-D : 1.Drawer closing operation
2. Error mode
3. Key catch Sound

1.Drawer closed compulsory	2. Error mode	3. Key catch sound	913-D	
Non-compulsory	All lock error	Yes	0	
		No	1	
	Miss operation (One shot error)	Yes	2	
		No	3	
Compulsory	All lock error	Yes	4	★
		No	5	
	Miss Operation (One shot error)	Yes	6	
		No	7	

[JOB#914] MRS = 1003

#914-A : 1.Tax delete operation

1.Tax delete	914-A	
Inhibit	0	
Enable	1	★

#914-B : 1.No-sale after NON ADD code entry

1. No-sale after # entry	914-B	
Disable	0	★
Enable	1	

#914-C : 1. Void mode

1.Void mode	914-C	
Enable	0	★
Disable	2	

#914-D : 1. Manual tax Disable/Enable
2. CHECK CASHING Enable/Disable
3. Non-add code entry Disable/Enable

1. Manual tax	2. CHECK CASHING	3. Non-add code entry	914-D	
Enable	Disable	Enable	0	
		Disable	1	
	Enable	Enable	2	
		Disable	3	★
Disable	Disable	Enable	4	
		Disable	5	
	Enable	Enable	6	
		Disable	7	

[JOB#915] MRS = 0000

#915-A, B : Not used (Fixed at "00")

#915-C : 1. ST%, ST(-) as many times needed/operation only once

1. ST%, ST(-) as many times needed/operation only once	915-C	
Unlimited	0	★
Once only	2	

#915-D : Not used (Fixed at "0")

[JOB#916] MRS = 0000

#916-A, B: Not used (Fixed at "00")

#916-C : 1. Negative merchandise subtotal
2. Subtotal entry compulsory before tendering
3. Subtotal entry before direct non-tendering finalization

1. Negative merchan-dise subtotal	2. Subtotal entry compulsory before tendering	3. Subtotal entry before direct non-tendering finalization	916-C	
Allow	Non-compulsory	Non-compulsory	0	★
		Compulsory	1	
	Compulsory	Non-compulsory	2	
		Compulsory	3	
Disallow	Non-compulsory	Non-compulsory	4	
		compulsory	5	
	Compulsory	Non-compulsory	6	
		Compulsory	7	

#916-D : 1. Coupon PLU printing on X/Z report
2. Net sales subtotal (NET1) printing on X/Z report
3. CHECK change total printing on X/Z report

1. Print coupon PLU's on general report	2. Print net sales SBTL (NET1) on general report	3. Print CHK CHANGE on general report	916-D	
Print	Print	Print	0	★
		Skip	1	
	Skip	Print	2	
		Skip	3	
Skip	Print	Print	4	
		Skip	5	
	Skip	Print	6	
		Skip	7	

[JOB#917] MRS = 0000

#917-A : 1. Printing of Taxable 1 subtotal on X/Z report
2. Printing of Gross Tax 1 and refund Tax 1 total on X/Z report
3. Printing of NetTax 1 total on XR report

1. Taxable 1 subtotal on X/Z report	2. Gross Tax 1 and refund Tax 1 total on X/Z report	3. Net Tax 1 total on X/Z report	917-A	
Print	Print	Print	0	★
		Skip	1	
	Skip	Print	2	
		Skip	3	
Skip	Print	Print	4	
		Skip	5	
	Skip	Print	6	
		Skip	7	

#917-B : 1. Printing of Taxable 2 subtotal on X/Z report
2. Printing of Gross Tax 2 and refund Tax 2 total on X/Z report
3. Printing of Net Tax 2 total on X/Z report

1. Taxable 2 subtotal on X/Z report	2. Gross Tax 2 and refund Tax 2 total on X/Z report	3. Net Tax 2 total on X/Z report	917-B	
Print	Print	Print	0	★
		Skip	1	
	Skip	Print	2	
		Skip	3	
Skip	Print	Print	4	
		Skip	5	
	Skip	Print	6	
		Skip	7	

#917-C : 1. Printing of Taxable 3 subtotal on X/Z report
2. Printing of Gross Tax 3 and refund Tax 3 total on X/Z report
3. Printing of Net Tax 3 total on X/Z report

1. Taxable 3 subtotal on X/Z report	2. Gross Tax 3 and refund Tax 3 total on X/Z report	3. Net Tax 3 total on X/Z report	917-D	
Print	Print	Print	0	★
		Skip	1	
	Skip	Print	2	
		Skip	3	
Skip	Print	Print	4	
		Skip	5	
	Skip	Print	6	
		Skip	7	

#917-D : 1. Printing of Total Tax amount on X/Z report
2. Printing of Gross manual Tax and refund manual Tax on X/Z
3. Printing of Net manual Tax total on X/Z report

1. Total Tax Amount	2. Gross manual Tax and Refund manual Tax on X/Z report	3. Net manual Tax total on X/Z report	917-D	
Print	Print	Print	0	★
		Skip	1	
	Skip	Print	2	
		Skip	3	
Skip	Print	Print	4	
		Skip	5	
	Skip	Print	6	
		Skip	7	

[JOB#918] MRS = 2000

#918-A : 1. Dirrect non-tendering finalization after previous tender entry

1. Dirrect non-tendering finalization after previous tender entry	918-A	
Disable	0	
Enable	2	★

#918-B, C, D : Not used (Fixed at "000")

[JOB#919] MRS = 0000

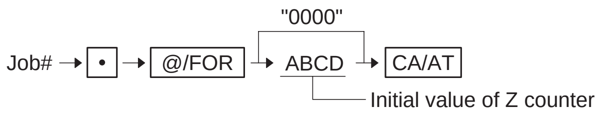
#919-A, B, C: Not used (Fixed at "000")

919-D : 1. Foreign currency format

1. Foreign currency	919-D	
Not	0	★
Omit digits lower than TAB position	1	

[JOB#930 ~ 931] MRS = 0000

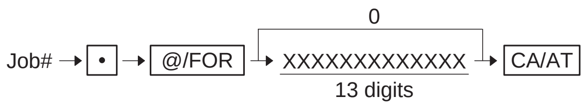
RESET REPORT COUNTER



JOB#	Function
930	Z1 report counter
931	Z2 report counter

[JOB#942, 943, 969] MRS = 0000000000000

GT COUNTER PRESETTING

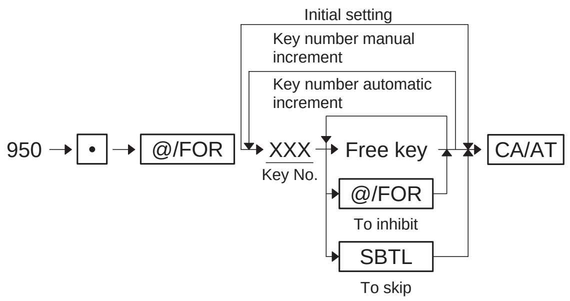


JOB#	Function
942	GT2 (Positive GT)
943	GT3 (Negative GT)
969	TRAINING GT

Note : GT1 is obtained by the following calculation.
Equation: GT1 =GT2-GT3

[JOB#950] MRS = STANDARD KEY LAYOUT

Free key layout (Except for department keys and direct PLU keys.)



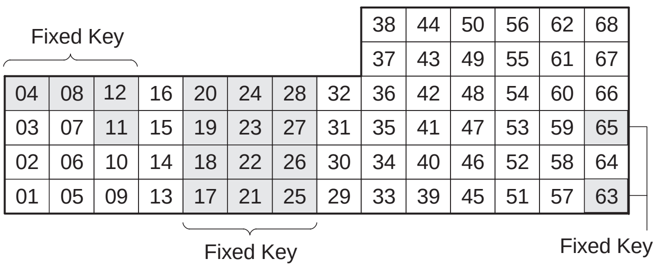
XXX : Key No. = 17 ~ 140

FUNCTION KEY LIST

Key No.	Key name
1	0 key (Fixed key)
2	1 key (Fixed key)
3	2 key (Fixed key)
4	3 key (Fixed key)
5	4 key (Fixed key)
6	5 key (Fixed key)
7	6 key (Fixed key)
8	7 key (Fixed key)
9	8 key (Fixed key)
10	9 key (Fixed key) ,
11	00 key (Fixed key)
12	Decimal point (Fixed key)
13	CL(Fixed key)
14	@/FOR (Fixed key)
15	SBTL (Fixed key)
16	CA/AT (Fixed key)
17	CASH2
18	MDSE SBTL
19	PLU/SUB
20	TAX1 SHIFT
21	TAX2 SHIFT
22	TAX3 SHIFT
23	TAX4 SHIFT
24	(Reserved)
25	PRINT
26	RCPT
27	VOID
28	REFUND
29	%1
30	%2
31	(-)1
32	(-)2
33	TAX
34	AUTO
35	AUTO2
36	(Reserved)
37	(Reserved)
38	CHECK
39	CHARGE1
40	CHARGE2
41	CONV1
42	CONV2
43	CONV3
44	CONV4
45	(Reserved)
46	RA
47	PO
48	(Reserved)
49	DEPT#
50	NS
51	ESCP
101	DEPT.1
102	DEPT.2
103	DEPT.3
104	DEPT.4

Key No.	Key name
105	DEPT.5
106	DEPT.6
107	DEPT.7
108	DEPT.8
109	DEPT.9
110	DEPT.10
111	DEPT.11
112	DEPT.12
113	DEPT.13
114	DEPT.14
115	DEPT.15
116	DEPT.16
117	DEPT.17
118	DEPT.18
119	DEPT.19
120	DEPT.20
121	DEPT.21
122	DEPT.22
123	DEPT.23
124	DEPT.24
125	DEPT.25
126	DEPT.26
127	DEPT.27
128	DEPT.28
129	DEPT.29
130	DEPT.30
131	DEPT.31
132	DEPT.32
133	DEPT.33
134	DEPT.34
135	DEPT.35
136	DEPT.36
137	DEPT.37
138	DEPT.38
139	DEPT.39
140	DEPT.40

ER-A320 KEY POSITION



CHAPTER 2. PROGRAM (PGM) MODE

1. Reading of the PGM mode program

List of program report

JOB# entry

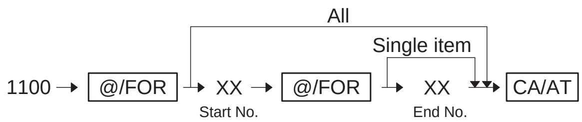
JOB#	REPORT NAME
1100	Department program report
1200	PLU program report
1300	Other program report
2700	Tax program report
2900	Auto key program report

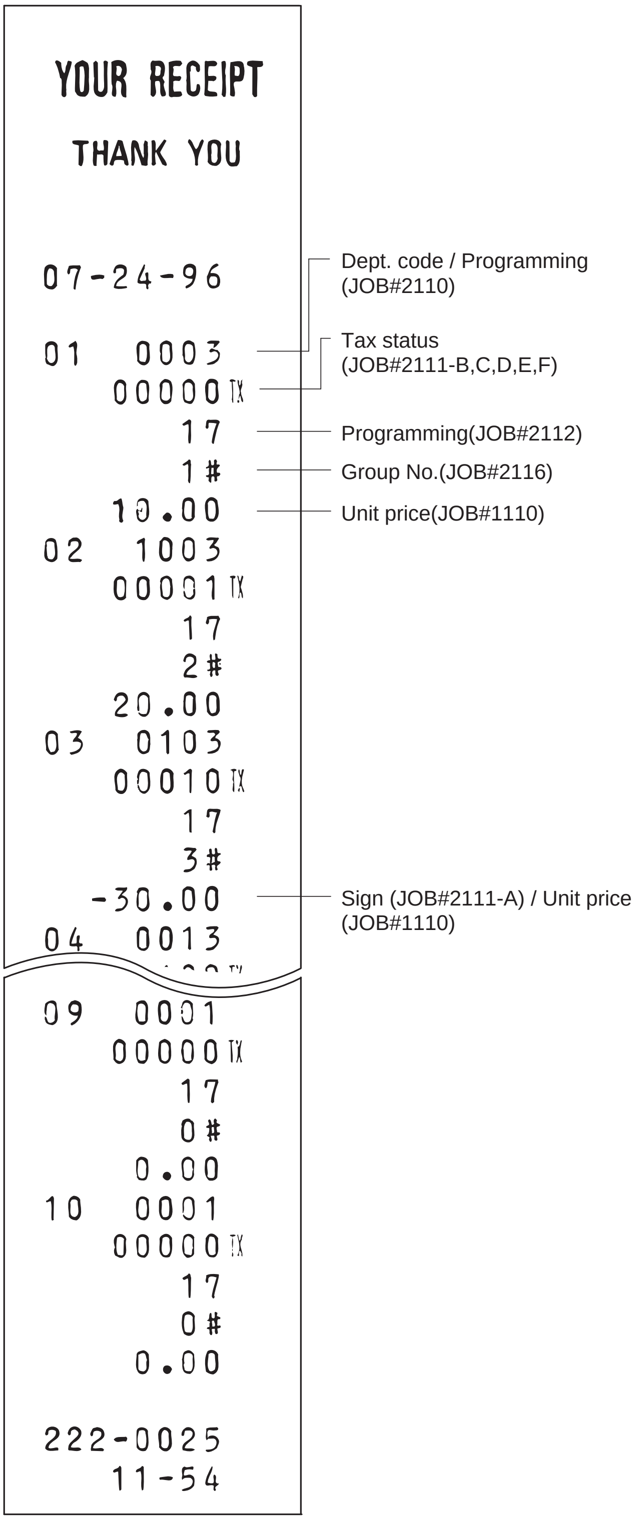
Direct key entry

JOB#	REPORT NAME
CA/AT	PGM mode program report (Not included the PLU program report and Auto key program report)
PLU	PLU program report

[JOB#1100] : Department program report

Key operation





[JOB#1200] : PLU program report

Key operation

1200 → [@/FOR] → XXX (Start No.) → [@/FOR] → XXX (End No.) → [CA/AT]

All: 1200 → [@/FOR] → [CA/AT]

Single item: 1200 → [@/FOR] → XXX (Start No.) → [@/FOR] → [CA/AT]

Receipt	Description
YOUR RECEIPT	
THANK YOU	
07-24-96	
PL001 01	PLU code / Dept. code (JOB#1200)
00000 TX	Tax status (JOB#2210-B,C,D,E,F)
2	Amount entry type(JOB#2210-G)
100.00	Unit price(JOB#1210)
PL002 02	
00001 TX	
2	
-200.00	Sign(JOB#2210-A) / Unit price (JOB#1210)
PL003 03	
00010 TX	
2	
300.00	
PL004 04	
00100 TX	
2	
PL009 09	
00000 TX	
2	
900.00	
PL010 10	
00000 TX	
2	
1000.00	
222-0027	
11-56	

[JOB#1300] : Other program report

Key operation

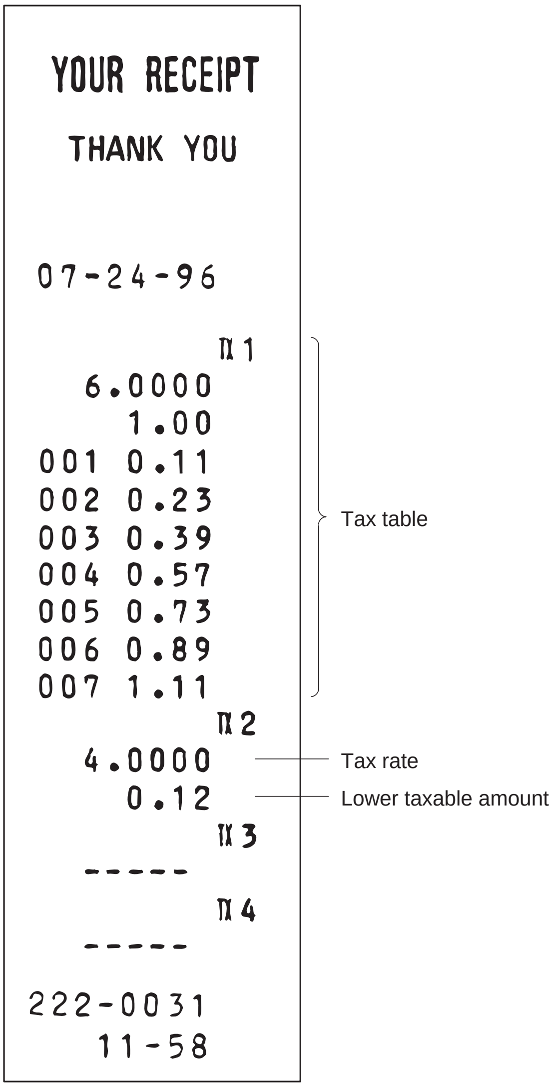
1300 → [@/FOR] → [CA/AT]

Receipt	Description
YOUR RECEIPT	
THANK YOU	
01-01-00	
-0.00⊖ 1	Sign(JOB#2311-A) / Unit price for (-) (JBO#1310)
00000	Tax status (-) (JOB#2311-B,C,D,E,F)
17	Limitation of entry digit for (-) (JOB#2312)
-0.00% 1	Sign(JOB#2311-A) /Rate for (%) (JOB#1310)
00000	Tax status for (%) (JOB#2311-B,C,D,E,F)
0.0000 EX 1	Conversion rate(JOB#1310)
18 RA	Limitation of entry digit for RA (JOB#2312)
18 PO	Limitation of entry digit for PO (JOB#2312)
00000000 CA	Programming for CA (JOB#2320)
18 CK	Limitation of entry digit for CK (JOB#2322)
00000000	Programming for CK (JOB#2320)
18 CH 1	Limitation of entry digit for CH (JOB#2322)
00000000	Programming for CH (JOB#2320)
9	
99999.99 CK	Limitation of entry digit for CHECK CASHING (JOB#2321)
9	
99999.99 CK CG	Limitation of entry digit for CHECK CHANGE (JOB#2321)
99	
99999.99	Limitation of entry digit for CID (Sentinel) (JOB#2321)
2616#	JOB#
1	Programming No.
00000000	Programming item (A,B,C,D,E,F,G,H)
2	
00000000	
3	
00000000	
4	
00000000	
2617#	
0	
000-0009	JOB#
12-05	Till timer

[JOB#2700] : Tax program report

Key operation

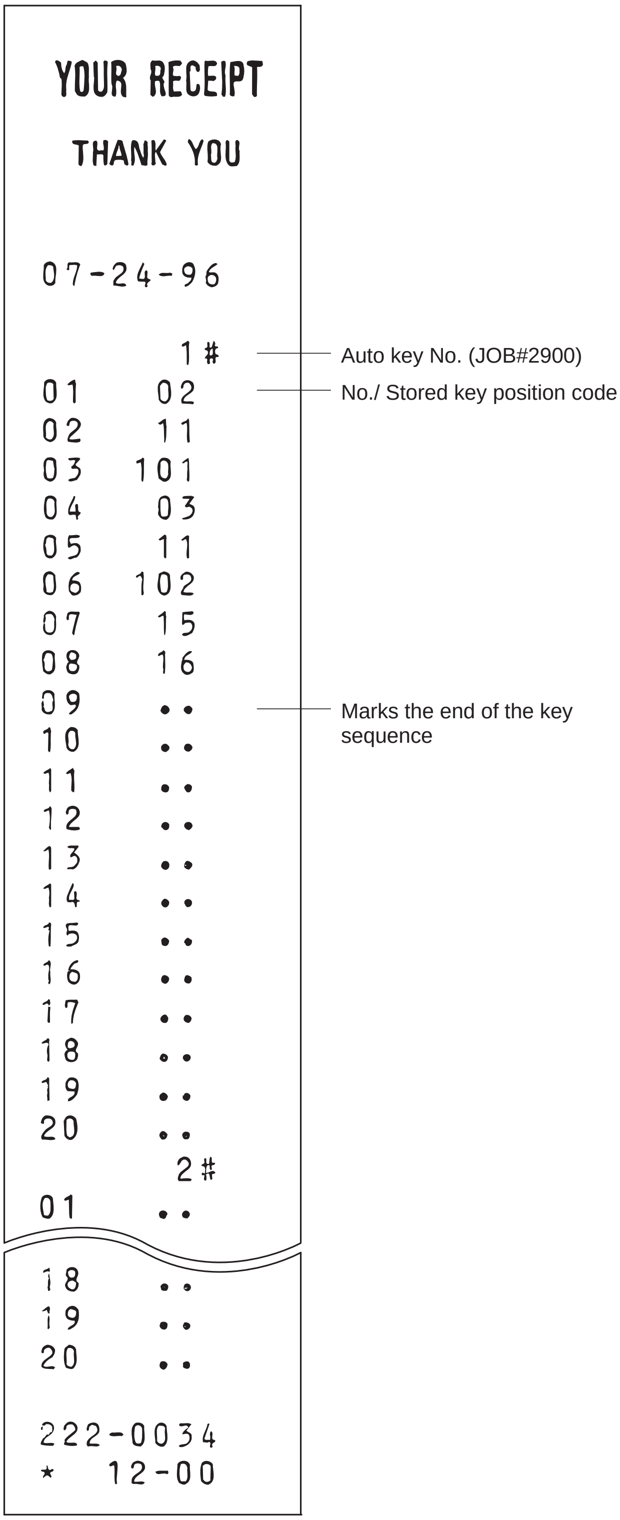
2700 → @/FOR → CA/AT



[JOB#2900] : Tax program report

Key operation

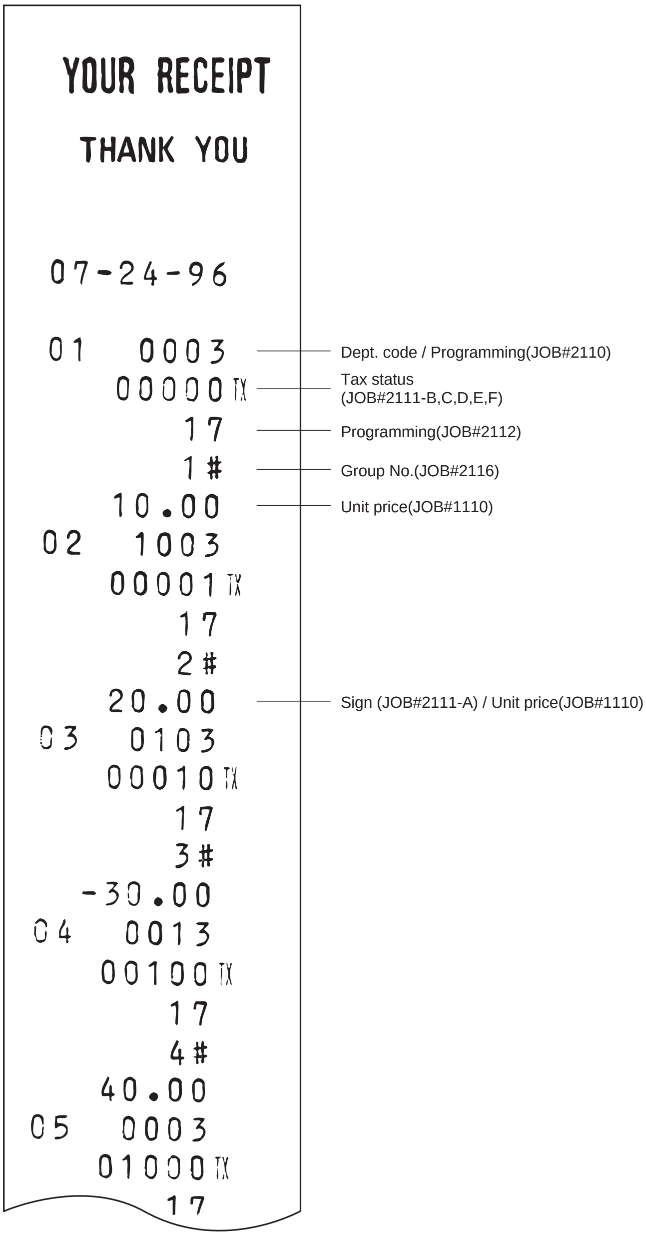
2900 → @/FOR → CA/AT

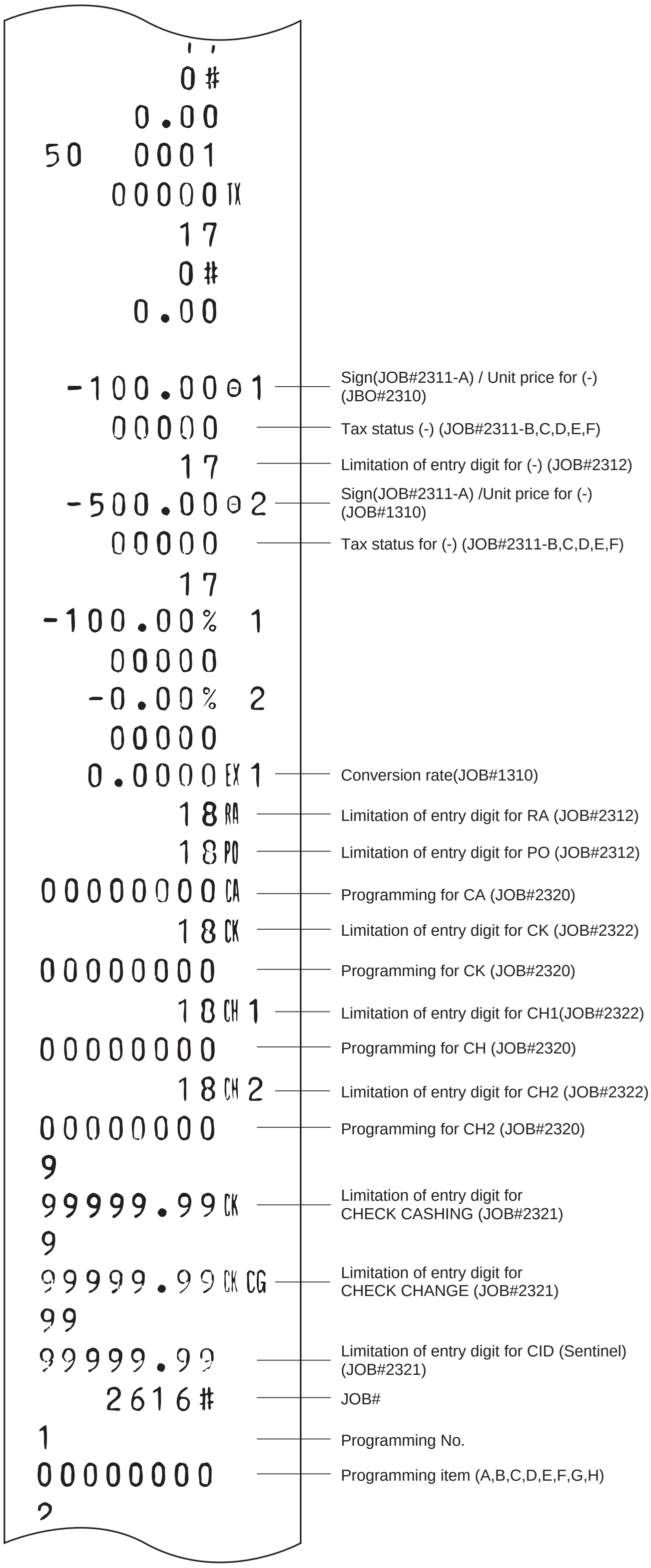


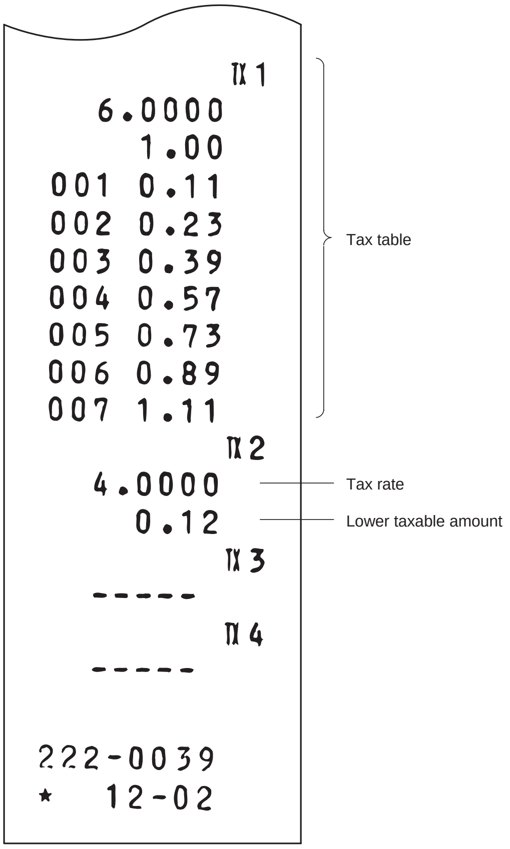
[CA/AT] : PGM mode program report

Key operation

→ CA/AT

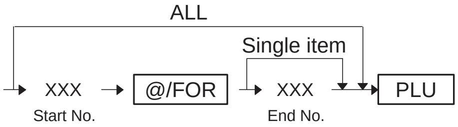


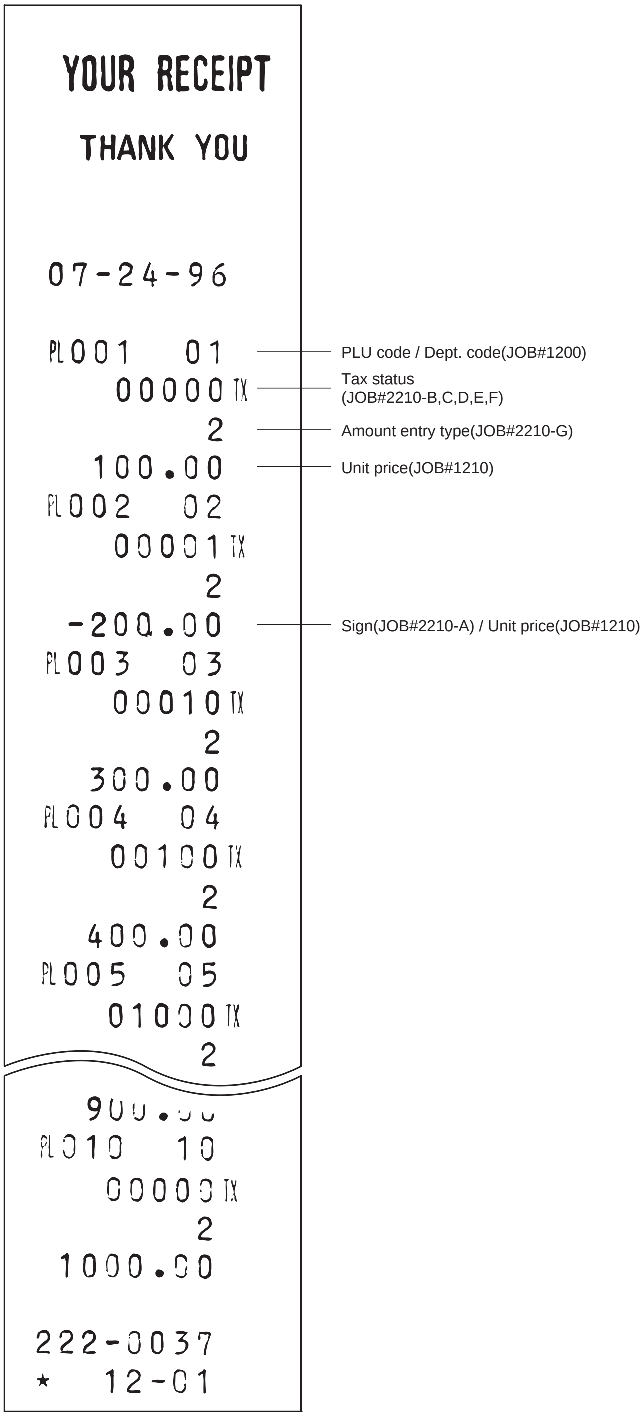




[PLU] : PGM mode program report

Key operation

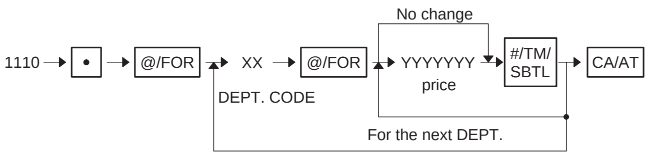




2. Programming by JOB# entry

[JOB#1110]

PROGRAMMING OF DEPT. PRICE



XX : DEPT- CODE = 01 ~ 40max

YYYYYYY : PRICE = 0 ~ 9999999

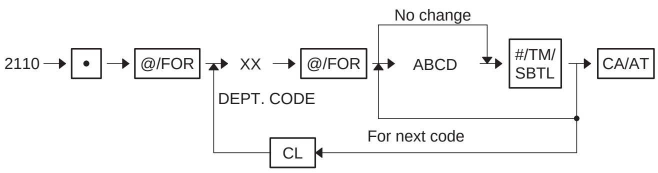
Preset price is max. 7 digits.

Price can be programmed for each dept. If this programming is perfomed, the ECR is automatically programmed to allow preset price entry even when it has been programmed not to allow preset price entry in dept. function programmng (JOB#2110).

MRS = 0000000

[JOB#2110]

PROGRAMMING OF DEPT. FUNCTION



XX : DEPT. code = 01 ~ 40 max.

A :

Item validation printing	A
Non compulsory	0
Compulsory	1

B :

SICS Function	B
Normal	0
Single item cash sale	1

C :

Dept. type	C
Normal	0
HASH	1

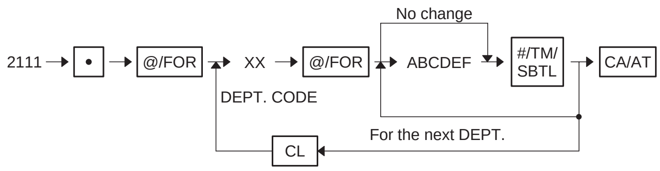
D :

AmDunt entry type	D
Inhibited	0
Open	1
Preset	2
Open and preset	3

MRS = 0001

[JOB#2111]

DEPT. TAX STATUS AND SIGN PROGRAMMING



XX : DEPT. CODE = 01 ~ 40max.

A :

Sign	A
+	0
–	1

B : Not used (Fixed at "0")

C :

Taxable 4	C
Non taxable	0
Taxable	1

D :

Taxable 3	D
Non taxable	0
Taxable	1

E :

Taxable 2	E
Non taxable	0
Taxable	1

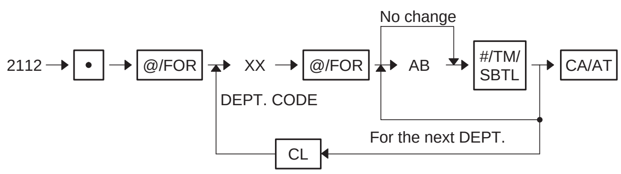
F :

Taxable 1	F
Non taxable	0
Taxable	1

MRS = 000000

[JOB#2112]

DEPT. HALO (limit) preset



XX : DEPT. CODE = 01 ~ 40max.

A : Mantissa(HALO) = 1 ~ 9

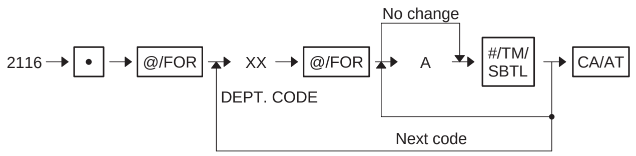
B : Exponent (HALO) = 0 ~ 7

∗ Items A and B indicate A x 10^B. Any amount below that value is enable within 9999999.

MRS = 17

[JOB#2116]

PROGRAMMING OF DEPT. GROUP



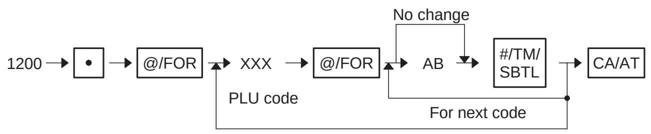
XX : DEPT. code = 01 ~ 40max.

AA : Group No. = 0 ~ 9

MRS = 0

[JOB#1200]

Creating/assigning PLUs and the associated departments.



XXX : PLU code = 001 ~ 999

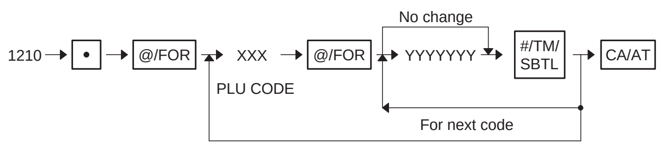
AB : DEFT. code = 01 ~ 40

If the record of entered PLU code is not in PLU file at this programming, it will be created in PLU file.

MRS = 01

[JOB#1210]

PRICE PROGRAMMING FOR PLUs



XXX : PLU CODE=001 ~ 999

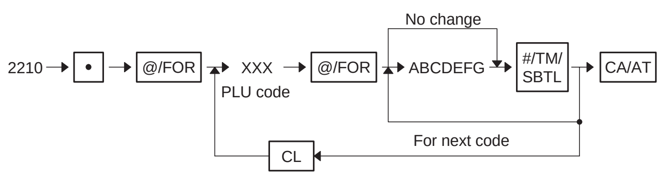
YYYYYY : Amount = 0 ~ 9999999

If the record of entered PLU code is not in PLU file at this programmlng, it will be created in PLU file.

MRS = 0000000

[JOB#2210]

PLU function programming



XXX : PLU code = 001 - 500/999 max.

A :

Sign	A
+	0
–	1

B : Not used (Fixed at "0")

C :

Taxable 4	C
Non taxable	0
Taxable	1

D :

Taxable 3	D
Non taxable	0
Taxable	1

E :

Taxable 2	E
Non taxable	0
Taxable	1

F :

Taxable 1	F
Non taxable	0
Taxable	1

G :

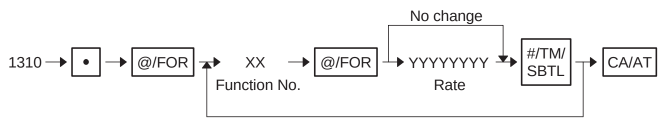
Amount entry type	G
Inhibited	0
Open	1
Preset	2
Open and preset	3
Delete	4

If the record of entered PLU code is not in PLU file at this programming, it will be created in PLU file.

MRS = 0000002

[JOB#1310]

RATE PROGRAMMING



XX : Fanction No.

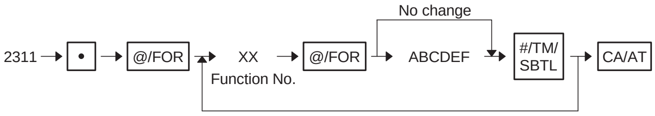
YYYYYYYY : Rate

Functlon No.	Function	Entry range	Remarks
1	(–) 1	0 to 99999.99	(–) unit Price
2	(–) 2		
3	%1	0 to 100.00	% rate
4	%2		
5	Conversion 1	0 to 9999.9999	Rate
6	Conversion 2		
7	Conversion 3		

MRS = 0

[JOB#2311]

MISC KEY PROGRAMMING 1



XX : Function No.

Function No.	Function
1	(–) 1
2	(–) 2
3	%1
4	%2

A :

Sign	A
+	0
–	1

*Not available for (–)1 and (–) 2

B : Not used (Fixed at "0")

C :

Taxable 4	C
Non taxable	0
Taxable	1

D :

Taxable 3	D
Non taxable	0
Taxable	1

E :

Taxable 2	E
Non taxable	0
Taxable	1

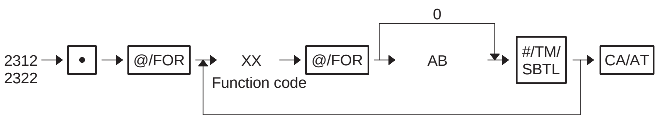
F :

Taxable 1	F
Non taxable	0
Taxable	1

MRS= 100000

[JOB#2312, 2322]

HALO PROGRAMMING



XX : Function No.

A : Mantissa (0 to 9)

B : Exponent (0 to 8)

JOB#	Function No.	Function	Remarks
2312	1	(–) 1	Item B is specificable within the range from 0 to 7
	2	(–) 2	
	9	TAX	
	10	RA	Item B is specificable within the range from 0 to 8.
	11	PO	

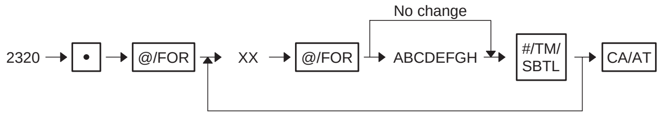
JOB#	Function No.	Function	Remarks
2322	13	CA2	Item B is specificable within the range from 0 to 8.
	14	CK	
	15	CH1	
	16	CH2	

Entry range, system :A x 10^B

MRS = 17 ((–) 1, (–) 2, TAX)
18 (RA, PO, CA2, CK, CH1, CH2)

[JOB#2320]

MEDIA KEY PROGRAMMING



XX : Function No.

Function No.	Function	A	B	C	D	E	F	G	H
12	CA1	○	○	○	○	○	○	○	○
13	CA2	○	○	○	○	○	○	○	○
14	CHK	○	○	○	○	○	○	○	○
15	CH1	○	○	○	○	○	○	○	○
16	CH2	○	○	○	○	○	○	○	○

* Items marked with on (O) are programmable.

A :

Change due	A
Enable	0
Disable	1

B :

VP	B
Non compulsory	0
Compulsory	1

C, D, E, F, G :Notused (Fixed at "00000")

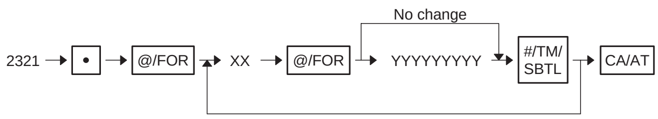
H :

Entry of amount tended	H
Non compulsory (Cash, Check) Inhibit (CH1 to CH2)	0
Compulsory	1

MRS=00000000

[JOB#2321]

MEDIA KEY FUNCTION PROGRAM (AMOUNT HALO)



XX : Function No.

YYYYYYYYY: Limitation amount

Func. No.	Function	Entry range	MRS
19	CID (Sentinel)	0 to 999999999	999999999
18	Check CHANGE	0 to 99999999	99999999
17	Check Cashing	0 to 99999999	99999999

[JOB#2610]
DATE SETTING

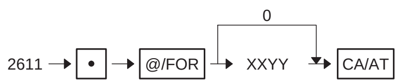


XXYYZZ : Date (Year-Month-Day/Day-Month-Year/Month-Day-Year)

∗ The date entry format complies with the applicable SRV-mode programmlng.

MRS = 010100

[JOB#2611]
TIME SEITING

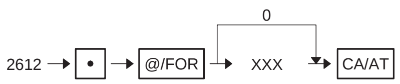


XX : Hour (00 ~ 23)

YY : Minute (00 ~ 59)

MRS = 0

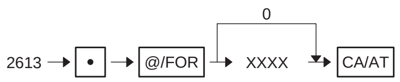
[JOB#2612]
MACHINE NUMBER SETTING



XXX : Machine number (000 ~ 999)

MRS = 000

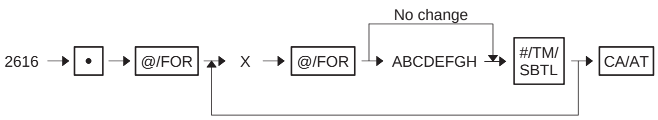
[JOB#2613]
CONSECUTIVE NUMBER SETTING



XXXX : Consecutive number (0000 ~ 9999)

MRS = 0000

[JOB#2616]
OPTIONAL FEATURE



X : 1 MRS = 00000000

A :

OP X/Z report	A
Enable	0
Disable	1

B, C : Not used (Fixed at "00")

D :

"RFND" key entry in REG mode	D
Enable	0
Disable	1

E :

Direct void function in REG mode	E
Enable	0
Disable	1

F :

In direct void in REG mode	F
Enable	0
Disable	1

G :

Subtotal void in REG mode	G
Enable	0
Disable	1

H : Not used (Fixed at "0")

X : 2 MRS = 00000000

A, B, C : Not used (Fixed at "000")

D :

Printing of the number of purchases	D
No	0
Yes	1

E :

Time print	E
Yes	0
No	1

F :

Printing of journal	F
Full print	0
Journal Select	1

G, H : Not used (Fixed at "00")

X : 3 MRS = 00000000

A, B, C : Not used (Fixed at "000")

D :

Zero skip in Transaction report	D
Yes	0
No	1

E :

Zero skip in Dept. report	E
Yes	0
No	1

F :

Zero Skip in PLU report	F
Yes	0
No	1

G :

Zero skip in Hourly report	G
Yes	0
No	1

H :

Zero skip in Daily net report	H
Yes	0
No	1

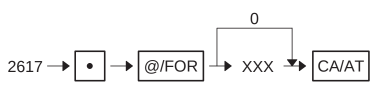
X : 4 MRS = 00000000

A :

Calculator function	A
Enable	0
Disable	1

B, C, D, E, F, G, H : Not used (Fixed at "0000000")

[JOB#2617]
PROGRAMMING OF THE TIME INTERVAL FOR THE TILL TIMER

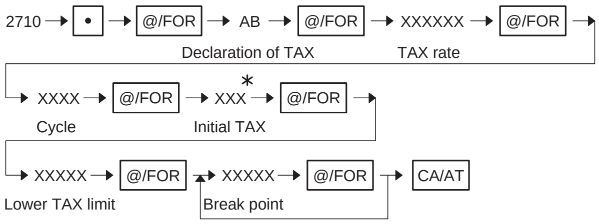


XXX : 0 ~ 255sec

MRS = 000

[JOB#2710]

TAX TABLE PROGRAMMING



72 BREAKPOINTS CAN BE PROGRAMMED FOR EACH TAX-TABLE.
(Case of interval between break point is 1 dollar or more and less than 100 dollar. 36 breakpoints is programmed for each table.)

∗ DEPRESSION OF THE SBTL KEY AT THE FOLLOWING POINTS MEANS A TAX TABLE DELETE OPERATION.

A : INTERVAL BETWEEN BREAKPOINTS IS = 1
1 DOLLAR OR MORE AND LESS THAN 100 DOLLAR
INTERVAL BETWEEN BREAKPOINTS IS = 0
BELOW 1 DOLLAR

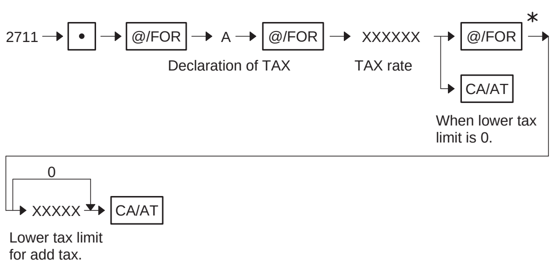
B : TABLE 1 PROGRAMMING =1
TABLE 2 PROGRAMMING =2
TABLE 3 PROGRAMMING =3
TABLE 4 PROGRAMMING =4

TAX rate	0.0000 - 99.9999%
Cycle	0 - 9999
Initial TAX	0 - 999
Lower TAX limit	0 - 99999
Break point	0 - 99999

MRS = NO TAX

[JOB#2711]

TAX RATE PROGRAMMING



DEPRESSION OF THE ST KEY AT FOLLOWING POINTS PERFORM A TAX TABLE DELETE OPERATION.

A :

Tax programming	A
Tax 1	1
Tax 2	2
Tax 3	3
Tax 4	4

xxxxxx : Rate = 0.0000 ~ 99.9999%

LOWER TAX LIMITATION max. 999.99

(This is invalid in VAT system.)

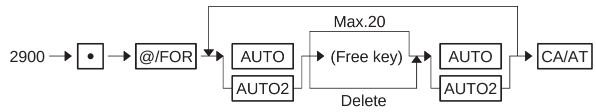
MRS=0

[JOB#2900]

<CAUTION>

(This JOB must be performed at X2/Z2 mode position.)

AUTO KEY SETTING



(Auto key function)

- This machine has [AUTO] key which can be programmed by the following key-Sequence.
- When [AUTO] key is depressed, the machine works the same as the programmed key-Sequence programed.

<Example>

Mode switch :(X2/Z2)

2900 → • → @/FOR → AUTO → 1 → PLU → 100 → DEPT2 → AUTO → TL

Mode switch :(REG)

Key entry	R/J	Display	Comment
AUTO	PL001	1	same as 1 entry
	★1.10	001 1.10	same as PLU entry
	02 ★1.00	1	same as 1 entry
		10	same as 0 entry
		100	same as 0 entry
		02 1.00	same as DEPT2 entry

Mode switch :(X2/Z2)

2900 → • → @/FOR → AUTO2 → 100 → TL → AUTO2 → TL

Mode switch :(REQ)

Key entry	R/J	Display	Comment
DEPT1	01 ★1.00	01 1.00	
AUTO2		1	same as 1 entry
	★1.00 TL	10	same as 0 entry
	★1.00 CA	100	same as 0 entry
	★1.00 CG	C 0.00	same as TL entry

[JOB#2910, 2911]

Training mode start (#2910), End (#2911)

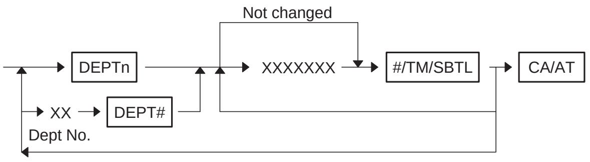
2910/2911 → • → @/FOR → CA/AT

<Training mode>

All operation is same as REG-mode operation.
In the training mode, the concective number is printed as same number in receipt / journal printer.
In the training mode, the concective number is counted up.

3. Programming by direct key entry

1) PRICE PROGRAMMING for DEPT.



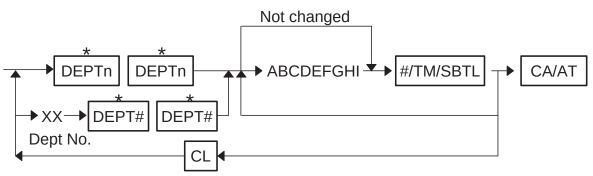
XXXXXXX : UNIT PRICE (Max. 7 digits)

MRS = 0

Note : Current price is displayed.

∗ If [DEPT#] or [DEPTn](same as displayed department number) is depressed, programming mode is changed from "PRICE PROGRAMMING" to "FUNCTION PROGRAMMING" (from "FUNCTION PROGRAMMING" to "PRICE PROGRAMMING").

2) FUNCTION PROGRAMMING for DEPT.



★ When starting setting, press [DEPTn] or [DEPTE#] key twice.
When continuing the same setting, press it once.

A :

Sign	A
+	0
–	1

B : Not used (Fixed at "0")

C :

Taxable 4	C
Non taxable	0
Taxable	1

D :

Taxable 3	D
Non taxable	0
Taxable	1

E :

Taxable 2	E
Non taxable	0
Taxable	1

F :

Taxable 1	F
Non taxable	0
Taxable	1

G :

SICS Function	G
Normal	0
Single item cash sale	1

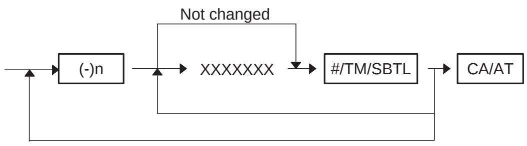
H: Limitation (Mantissa) = 0 ~ 9

I : Limitation (Exponent) = 0 ~ 7

MRS = NORMAL, 17 HALO

Note : Current setting is displayed.

3) PRICE PROGRAMMING for (-) KEYS.



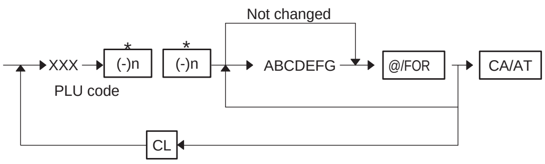
XXXXXXX : UNIT PRICE (Max. 7 digits)

MRS = 0

∗ If the same [(-)n] key is depressed, programming mode is changed from "PRICE PROGRAMMING" to "FUNCTION PROGRAMMING" (from "FUNCTION PROGRAMMING" to "PRICE PROGRAMMING").

Note : Current price is displayed.

4) FUNCTION PROGRAMMING for (-) KEYS.



A : Not used (Fixed at "0")

B : Not used (Fixed at "0")

C :

Taxable 4	C
Non taxable	0
Taxable	1

D :

Taxable 3	D
Non taxable	0
Taxable	1

E :

Taxable 2	E
Non taxable	0
Taxable	1

F :

Taxable 1	F
Non taxable	0
Taxable	1

G: Not used (Fixed at "0")

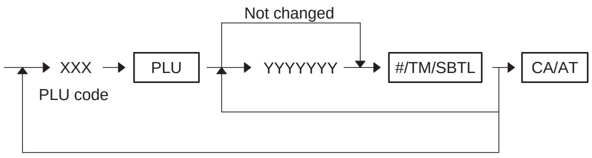
H: Limitation (Mantissa) = 0 ~ 9

I : Limitation (Exponent) = 0 ~ 7

MRS = NORMAL, 17 HALO

Note : Current setting is displayed.

5) PLU PRESET PRICE SETTING



XXX : PLU CODE (001 to 999)

YYYYYYY : UNIT PRICE (7 digits)

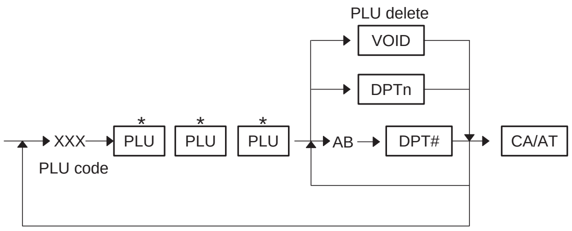
If the record of entered PLU code is not in PLU file at this programming. it will be created in PLU file.

MRS = 0

∗ If the same [PLU] key is depressed, programming mode is changed from "PRICE PROGRAMMING" to "ATTRIBUTE PROGRAMMING" and changed to "DEPT. ASSOCIATION PROGRAMMING" by depressing the [PLU] key again.

Note : Current price is displayed.

6) PLU ASSOCIATION TO DEPARTMENTS



★ When starting setting, press [PLU] key three times. When continuing the same setting. press it once.

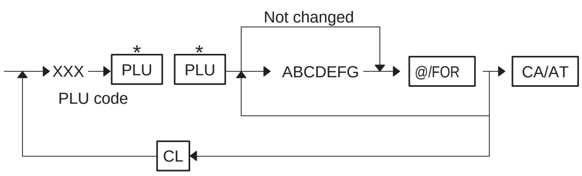
XXX : PLU CODE (001 to 999)

AB : Dept.code = 1 to 40

If the record of entered PLU code is not in PLU file at this programming, it will be created in PLU file.

MRS = 01

7) PLU ATTRIBUTE SETTING



★ When starting setting, press [PLU] key twice. When continuing the same setting, press it once.

XXX : PLU CODE (001 to 999)

A :

Sign	A
+	0
–	1

B : Not used (Fixed at "0")

C :

Taxable 4	C
Non taxable	0
Taxable	1

D :

Taxable 3	D
Non taxable	0
Taxable	1

E :

Taxable 2	E
Non taxable	0
Taxable	1

F :

Taxable 1	F
Non taxable	0
Taxable	1

G :

Amount entry type	G
Inhibited	0
Open	1
Preset	2
Open and preset	3
Delete	4

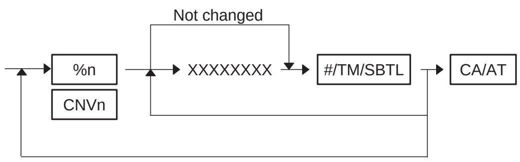
If the record of entered PLU code is not in PLU file at this programming, it will be created in PLU file.

MRS = 002

∗ If the same [PLU] key is depressed, programming mode is changed from "PRICE PROGRAMMING" to "ATTRIBUTE PROGRAMMING" and changed to "PLU ASSOCIATION PROGRAMMING" by depressing the [PLU] key again.

Note :Current setting is displayed.

8) PROGRAMMING RATE FOR % & CONVERSION KEY



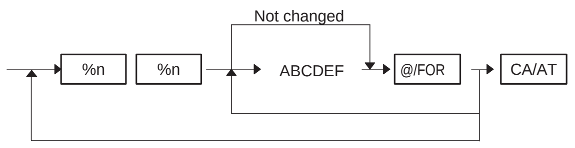
XXXXXXXX : 0.01% ~ 100.00% (%n)
0.0001 ~ 9999.9999 (CNVn)

MRS = 0.00%

∗ If the same [%n] key is depressed, programming mode is changed from "RATE PROGRAMMING" to "FUNCTION PROGRAMMING" (from "FUNCTION PROGRAMMING" to "RATE PROGRAMMING").

Note : Current rate is displayed.

9) PROGRAMMING FOR %KEY



A :

Sign	A
+	0
–	1

B : Not used (Fixed at "0")

C :

Taxable 4	C
Non taxable	0
Taxable	1

D :

Taxable 3	D
Non taxable	0
Taxable	1

E :

Taxable 2	E
Non taxable	0
Taxable	1

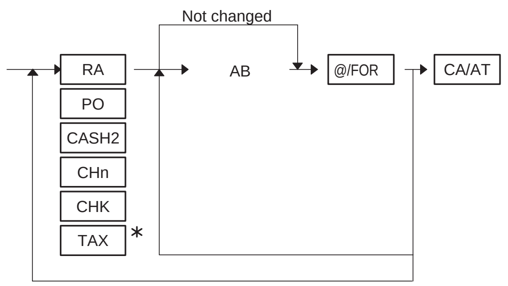
F :

Taxable 1	F
Non taxable	0
Taxable	1

MRS = 100000

Note : Current setting is displayed.

10) PROGRAMMING FOR MEDIA KEYS & FUNCTION KEYS



A : Mantissa (0 to 9)

B : Exponent (0 to.8)

MRS = 18 digits (RA, PO)
18 digits (CASH2, CHn, CHK)
17 digits (TAX)

Note : Current setting is displayed.

∗ When starting setting, press [TAX] key twice.

11) DATE, TIME PROGRAMMING



DATE : date entry format follows SRV Programming (6 digits)

TIME : 24 hour system (4 digits)

MRS = DATE : 01 - 01 - 00
TIME : 00 - 00

12) CONSECUTIVE NO. PROGRAMMING

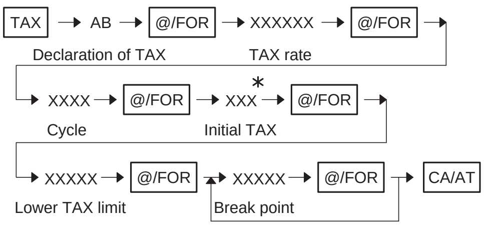


CONSECTIVE
NO.

CONSECUTIVE NO. : 0000 to 9999 (4 digits)

MRS = 0001

13) TAX TABLE PROGRAMMING



72 BREAKPOINTS CAN BE PROGRAMMED FOR EACH TAX TABLE.
(Case of interval between break point is 1 dollar or more and less than 100 dollar, 36 breakpoints is programmed for each table.)

∗ DEPRESSION OF THE SBTL KEY AT THE FOLLOWING POINTS MEANS A TAX TABLE DELETE OPERATION.

A : INTERVAL BETWEEN BREAKPOINTS IS 1 DOLLAR OR MORE AND LESS THAN 100 DOLLAR = 1
INTERVAL BETWEEN BREAKPOINTS IS BELOW 1 DOLLAR :0

B : TABLE 1 PROGRAMMING = 1
TABLE 2 PROGRAMMING = 2
TABLE 3 PROGRAMMING = 3
TABLE 4 PROGRAMMING = 4

TAX rate	0.0000 - 99.9999%
Cycle	0 - 9999
Initial TAX	0 - 999
Lower TAX limit	0 - 99999
Break point	0 - 99999

MRS = NO TAX

CHAPTER 3. OP X/Z, X1/Z1,X2/Z2 MODE

The following categories of reports can be printed by the ECR.

1) OP X/Z reports (individual clerk reports)

2) X1/Z1 reports (Daily sales total X and Z reports)

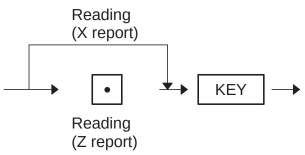
3) X2/Z2 reports (Periodic total X and Z reports)

1. Print report

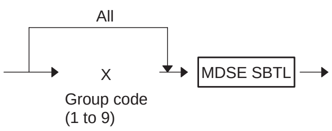
In the table below those reports marked with a circle "O" can be printed by the standard machine and those marked with an asterisk "∗" can be printed when the corresponding option is added.

REPORT NAME	KEY ENTRY	MODE						DATA FOR READING	REMARK
		OP X/Z		X1/Z1		X2/Z2			
		X	Z	X1	Z1	X2	Z2		
GENERAL	CA/AT			○	○	○	○		∗1
DEPT/GROUP	MDSE SBTL			○		○		GROUP CODE	∗1 ,∗2
TRANSACTION	CHK			○		○			∗1
HOURLY	#/TM/SBTL			○	○				∗1
DAILY NET	#/TM/SBTL					○	○		∗1
PLU(RANGE)	PLU			○	○	○	○	PLU CODE	∗1 ,∗3
PLU(DEPT)	DPTn DPT#			○		○		DEPT.CODE	∗1 ,∗4

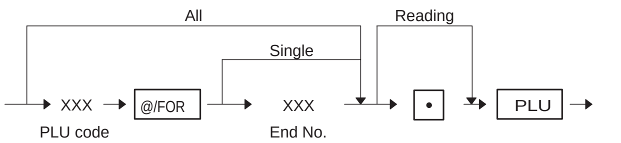
∗1 To read respective reports. it is necessary to follow the procedure below.



∗2



∗3 PLU code range can be specified by entering the start and end numbers according to the following procedure.
When specifying a single time interval, PLU code, the start number has only to be entered.



∗4 To read respective reports, it is necessary to follow the procedure below.



2. Flash report

REPORT NAME	KEY ENTRY	MODE						DATA FOR READING	REMARK
		OP X/Z		X1/Z1		X2/Z2			
		X	Z	X1	Z1 ∗3	X2	Z2 ∗3		
NET3	CA/AT	○							
DEPT	DPTn DPT#	○						DEPT. CODE	∗7
DEPT/GROUP	MDSE SBTL	○						GROUP CODE	∗5
HOURLY	#/TM/SBTL	○						TIME	∗6
CID	@/FOR	○							

∗5 To read respective reports, it is necessary to follow the procedure below.

→ TIME → #/TM/SBTL →

TIME : 24 hour system (2 digits)

∗6 To read respective reports, it is necessary to follow the procedupe below.

→ XX → DEPT# →

Dept. code

∗7 To read respective reports, it is necessary to follow the procedure below.

→ Group No. → MDSE SBTL →

3. Overflow mark

If the amount in any totalizer other than GT to be printed on X or Z reports exceeds a programmed limit, the indication mark (overflow mark) is printed for the totalizer concerned.
The overflow mark may be printed even it a totalizer does not reach the maximum amount. This occurs. for example, when the amount in the totalizer gets smaller than the maximum amount due to the entry of a negative amount after the overflowing of the totalizer. This means that when the totalizer overflows once. the overllow mark (for example, "★★★ ") is printed.

SHARP

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Yamatokoriyama, Nara 639-1186, Japan
1999 September Printed in Japan ⓣ